24 March 2000



Weather

# SEVERE WEATHER PROCEDURES

# **COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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OPR: 16 LSS/LGQ (SSgt Halvorson) Supersedes: LGOI 15-101 5 Aug 99 Certified by: 16 LG/CCA (MSgt Holder)

Pages: 5
Distribution: X

This Operating Instruction (OI) establishes procedures and responsibilities for the protection of aerospace vehicles from damage by severe weather and provides guidance for hot and cold weather operations. This OI applies to all maintenance organizations assigned to the group and outlines procedures to be accomplished in conjunction with HF OPlan 32-1, *Hurlburt Field Disaster Preparedness Operation Plan* 

# 1. HURLBURT FIELD SEVERE WEATHER NOTIFICATION PROCEDURES:

1.1. Upon notification of any **WEATHER ADVISORY** from the Base Weather Service, the Maintenance Control Center (MCC) (Hurlburt only) will notify all radio nets using the following format:

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1.1.1.	Type of Advisory:
1.1.2.	Advisory Number:
1.1.3.	Time and Date Received:
1.1.4.	Notified By:
	Time Valid:
	Wind Direction:
	Wind Velocity:
	Conditions:

- 1.2. The MCC will ensure the following personnel are notified immediately via hotline or radio (by checklist):
- 1.2.1. Aircraft Maintenance Unit (AMU) and Helicopter Maintenance Unit (HMU) Production Superintendents, and 16th Aircraft Generation Squadron (16 AGS) Super.
- 1.2.2. Petroleum Oil and Lubricants (POL)
- 1.2.3. Transient Alert
- 1.2.4. Fuel Cell
- 1.2.5. Munitions Control
- 1.2.6. Weapons shop
- 1.2.7. Aerospace Ground Equipment (AGE) dispatch
- 1.2.8. 16 CRS supervision (NOV 2)
- 1.2.9. 16 EMS supervision (MIKE 2)

- 1.2.10. Quality Assurance
- 1.2.11. Port Operations
- 1.2.12. Field Training Detachment (FTD)
- 1.2.13. Test Cell
- 1.2.14. Vehicle Operations

# 2. 16 MXS SEVERE WEATHER NOTIFICATION PROCEDURES:

- 2.1. IAW AFDTC OPlan 15-1, the 16 MXS/MCC (Eglin AFB) will initiate its severe weather plan under the following conditions:
- 2.1.1. Notification of severe weather by the 46th Weather Squadron or Improved Weather Dissemination System.
- 2.1.2. Notification by Eglin AFB Command Post of severe weather affecting Eglin AFB main area.
- 2.2. When any of the above actions occur, the 16 MXS/MCC will ensure the following agencies are notified:
- 2.2.1. Squadron Maintenance Officer
- 2.2.2. Production Superintendents
- 2.2.3. All radio nets
- 2.2.4. Support Section (who will in turn broadcast the weather warning over the intercom system)

# 3. MAINTENANCE RESPONSIBILITIES:

- 3.1. When severe weather is forecast, maintenance supervisors will review all pending maintenance activities to ensure they can be safely terminated at the onset of severe weather. In-progress maintenance operations will be closely monitored by production superintendents and expediters to ensure safe and immediate termination in the event of deteriorating weather conditions. Production superintendents will monitor maintenance radio nets for weather advisories from the MCC and be prepared to hangar aircraft and evacuate personnel from flightline areas if necessary.
- 3.1.2. When aircraft surfaces are wet or covered with snow, frost, or ice, extra caution will be used. If the operational needs do not allow delays for conditions to improve, fall protection shall be used.
- 3.1.3. In the case of a forecast of three-quarter inch hail or larger, hangar aircraft in the following order of priority:
- 3.1.3.1. MH-53J/M: 16 HGS Freedom and Independence Hangars, Eason Hangar, Fuel Cell Hangar, Wash Rack or any hangar available.
- 3.1.3.2. AC/MC-130: Eason Hangar, Fuel Cell, C-130 Nose Dock.
- 3.1.3.3. 6 SOS UH-1 and the Casa 212: Any hangar available.
- 3.1.3.4. The 16 MXS/MCC will coordinate with the 46 MCC for emergency hangar requirements (i.e. access to King Hangar, Climatic Laboratory or Corrosion Dock).
- 3.2. 16 AGS, 16 CRS, 16 EMS, 16 HGS, and supervision must utilize hangar space wisely.
- 3.2.1. When all hangar space in Eason Hangar, Commando Hangar, Fuel Cell Hangar, helicopter hangars and C-130 nose docks are filled and additional space is needed, the wash rack may be used as a last resort. The wash rack does not provide protection from wind, but will provide protection from hail damage.
- 3.2.2. When the wash rack is used for helicopters, the following procedures will be used:
- 3.2.2.1. Only four MH-53J/M helicopters with blades extended will be parked in the wash rack.

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- 3.2.2.2. Use extreme caution when parking aircraft in the wash rack when not using approved taxi lines.
- 3.3. When a weather advisory is issued, each squadron will provide all available personnel to assist aircraft hangaring. All available vehicles equipped with pintle hooks will assist in removing AGE and support equipment from the flightline.
- 3.3.1. 16 EMS (Eason Hangar) will:
- 3.3.1.1. Assist with opening hangar doors.
- 3.3.1.2. Assist in positioning stands.
- 3.3.1.3. Assist in attaching snatch cable or tow bars to as many hangared aircraft as possible. A sufficient number of snatch cables will be stored in each hangar for maximum capacity of each type of aircraft. Using organizations will perform maintenance on cables. Exception: Respective Isochronal (ISO) dock will maintain two sets.
- 3.3.1.4. Act as wing and tail walkers as required.
- 3.3.1.5. Place straps on opened circuit breakers for applicable squib activated systems.
- 3.3.1.6. Install danger tags and ground wires.
- 3.3.2. 16 CRS will:
- 3.3.2.1. Assist in securing loose equipment near squadron areas
- 3.3.2.2. Assist flightline personnel as directed by MCC.
- 3.3.3. Provide personnel for tow teams as directed by MCC.
- 3.3.4. Complete cooperation and assistance from all personnel are required to ensure aircraft and equipment are hangared or stored in a safe and timely manner. MCC and production superintendents are responsible for this effort.

# 4. THUNDERSTORM/LIGHTNING RESPONSE (TAKE ACTION WHEN ADVISED): LIGHTNING WATCH:

4.1. Lightning Watch. Issued 30 minutes prior to the potential for thunderstorms being within a 5 nautical mile (nm) radius from the center of runway. Maintenance activities may continue; however, all personnel must be prepared to implement Lightning Warning procedures without delay.

#### THUNDERSTORMS ADVISORY:

4.2. Thunderstorms within 10nm advisory: Maintenance supervisors will take precautionary steps to prepare for lightning within 5nm. In-progress maintenance operations will continue; however, all personnel must be prepared to terminate in the event lightning warning is called. If severe weather is moving into the area, all pending servicing operations will be reviewed to assure they can be safely concluded prior to lightning coming within 5nm.

# **LIGHTNING WARNING:**

- 4.3. When advised of lightning warning (lightning within 5nm), maintenance supervisors will take necessary action to ensure that all maintenance operations on the flightline are immediately terminated in a safe manner. All personnel will be removed from the flightline to appropriate shelter.
- 4.4. Anyone working on the flightline who observes lightning or severe weather in the area and feels an unsafe condition exists will notify their supervisor immediately. Any supervisor notified of suspected hazardous weather conditions will assess the situation, take appropriate precautionary actions to ensure personnel are safe, and notify the MCC. The MCC will request a weather update from base weather and broadcast the updated forecast over all maintenance radio nets.
- 4.5. All paint spraying operations will be terminated at 16 EMS Fabrication Flight washrack facility and corrosion control workcenter. Maintenance personnel will not

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return to the flightline or begin painting operations until the weather warning has been cancelled and applicable supervisors have cleared them to return to work.

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# 5. WIND WARNINGS:

- 5.1. Supervisors need to keep in mind the long-range weather forecast before preparing aircraft and equipment for maintenance. The following list of actions are paraphrased from aircraft and equipment technical orders and AFOSH STD for maintenance:
- 5.2. Winds 20 30 Knots: **(AN OBSERVED WEATHER ADVISORY WILL NOW BE MADE FOR WINDS AT 20 KNOTS.)**
- 5.2.1. Mission essential jacking will be performed following applicable aircraft TO guidelines for winds of 20 45 knots. Ensure aircraft outside are removed from jacks. If aircraft are hangared, close the doors and continue to work.
- 5.2.2. If stands are in use they need to be removed and secured upon completion of work.
- 5.3. Winds 30 45 Knots:
- 5.3.1. All MH-53J/M will be parked into the wind and grounded, main rotor blades will be tied down, MLG lock pins installed, wheels chocked, protective covers installed, and parking brakes and rotor brake set.
- 5.3.2. Install all aircraft radomes, plugs, panels, and hatches.
- 5.3.3. All C-130 aircraft will be removed from jacks for wind gusts and constant winds above 45 knots.

**NOTE:** Follow applicable tech data.

- 5.3.4. All powered and non-powered AGE to include fire bottles must be tied down to a flightline tie down point or steel cable able to withstand a minimal tensile strength of 1,000 pounds IAW AFOSH STD 91-100, *Aircraft Flight Line Ground Operations and Activities*. 5.3.5. Close all hangar and building doors.
- 5.4. Winds 45 60 Knots:
- 5.4.1. Hangar all MH-53J/M helicopters. If hangar space is not available, deflate aircraft shock struts, fill fuel tanks to capacity, fold or remove main rotor blades, nail wood cleats from chock to chock, and moor the aircraft IAW TO 1H-53(M)J-2-1, *Airframe and Group, Ground handing, Servicing, Lubrication, landing Gear, Armament, Utility System MH-53J and B Series Helicopters*, Fig. 2-10. Shock strut damage will occur if aircraft is moved with struts deflated. After high or gusty winds refer to TO 1H-53(M)J-2-4, *Flight Control, Hydraulic Powersupply, Transmission, Rotors and Blades Systems USAF Series MH-53J and M Helicopters* for flight controls inspection.
- 5.4.2. All C-130 aircraft with gross weight below 85,000 pounds will be tied down or moored IAW the applicable technical order. Do not hangar aircraft in the nose dock.

**NOTE:** Adding fuel or cargo may increase the aircraft gross weight.

- 5.4.3. The AGE being utilized on the flightline will be stored in the southeast corner of Eason Hangar or the C-130 Nose Docks as determined by the on-scene production supervisors. 16 MXS will store AGE and loose equipment in hangars 421 and 422. All LOX and LN2 carts will be removed from the flightline and stored in the LOX plant to prevent any possible contact with petroleum products. Aircraft have priority over all AGE equipment.
- 5.5. Winds 60 -70 Knots:

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- 5.5.1. All MH-53J/M will be stored in hangar or evacuated to safe weather area.
- 5.5.2. All C-130 aircraft will be moored IAW the applicable technical data.
- 5.6. Winds 75 Knots or Greater:
- 5.6.1. OPlan 32-1
- 5.6.2. If hurricanes or tropical storms are expected, all flyable aircraft should be evacuated, only non-flyable aircraft should remain.

# 6. TORNADO RESPONSE:

- 6.1. Forecasted weather watch (means potential exists) for tornadoes/waterspouts within 5nm of Hurlburt Field. Lead-time is 4 hours.
- 6.2. Forecasted weather warning for tornadoes/waterspouts within 5nm miles of Hurlburt Field. Lead-time is 5 minutes.
- 6.3. The 16 SOW Command Post will sound base siren if tornado has been spotted and coming towards Hurlburt Field.
- 6.4. Follow established Facility Tornado Safe Area guidance

## 7. COLD WEATHER OPERATIONS:

- 7.1. During chill factors of -10F through -20F, only mission essential maintenance will be performed with the additional requirement that a two-person concept be used to ensure a cross check for signs of frostbite, fatigue or hypothermia. Maintenance will be performed only when arctic weather clothing is issued and utilized when chill factors are below -20F, and as directed by squadron maintenance officer.
- 7.2. During weather conditions where frost or ice could be expected to form on aircraft surfaces, parking ramps, support equipment and other critical items, the following minimum precautions will be taken:
- 7.2.1. Any maintenance performed where slipping is anticipated by individuals on aircraft surfaces where a fall of more than ten feet could result, personnel will utilize maintenance stands and work platforms whenever possible to reduce the exposure and risk of falling.
- 7.2.2. Ensure all AGE equipment is secured when not in use to prevent movement on slick surfaces due to freezing rain and drizzle.
- 7.2.3. Observed weather advisory for temperatures 40F and less.
- 7.2.4. A forecasted weather advisory for temperatures 32F and less. Lead-time will be 2 hours.

### 8. HOT WEATHER OPERATIONS:

- 8.1. Flightline supervisors, and/or production superintendents, and/or expeditors will ensure adequate water supply is available on the flightline for personnel.
- 8.2. Refer to HFI 48-106, *Heat Stress Prevention Program*, for the heat stress index.

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